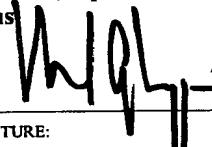


FORM PTO-1390 (REV 11-98)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371			IOLL-281	
INTERNATIONAL APPLICATION NO. PCT/US98/12823 ✓		INTERNATIONAL FILING DATE 19 June 1998 (19.06.98) ✓		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 09/446471
TITLE OF INVENTION Fluid Purification Devices and Methods Employing Deionization Followed by Ionization Followed by Deionization ✓			PRIORITY DATE CLAIMED 20 June 1997 (20.06.97)	
APPLICANT(S) FOR DO/EO/US Li ZHANG ✓				
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:				
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1). 4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date. 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> has been transmitted by the International Bureau. c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau). b. <input type="checkbox"/> have been transmitted by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). 				
Items 11. to 16. below concern document(s) or information included:				
<ol style="list-style-type: none"> 11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 14. <input type="checkbox"/> A substitute specification. 15. <input checked="" type="checkbox"/> A change of power of attorney and/or address letter. 16. <input checked="" type="checkbox"/> Other items or information: Acknowledgement postcard Letter of Transmittal 				

U.S. APPLICATION NO. (if known, see 37 CFR 1.1)		INTERNATIONAL APPLICATION NO. PCT/US98/12823	ATTORNEY'S DOCKET NUMBER IOLL-281
17. <input checked="" type="checkbox"/> The following fees are submitted:		CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):			
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$970.00			
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$840.00			
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$760.00			
International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$670.00			
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$96.00			
ENTER APPROPRIATE BASIC FEE AMOUNT = \$ 570.00			
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).		\$ 130.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	23 - 20 =	3	X \$18.00 \$ 54.00
Independent claims	2 - 3 =	0	X \$78.00 \$ 0
MULTIPLE DEPENDENT CLAIM(S) (if applicable)		+ \$260.00 \$	
TOTAL OF ABOVE CALCULATIONS = \$ 854.00			
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).		\$	
SUBTOTAL = \$ 854.00			
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).		\$	
TOTAL NATIONAL FEE = \$ 854.00			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property		\$	
TOTAL FEES ENCLOSED = \$ 854.00			
		Amount to be: refunded	\$
		charged	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ <u>854.00</u> to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>50-1133</u>. A duplicate copy of this sheet is enclosed.</p>			
<p>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p> <p>SEND ALL CORRESPONDENCE TO:</p> <p>Mark G. Lappin McDERMOTT, WILL & EMERY 28 State Street Boston, Massachusetts 02109 Tel. 617-535-4043 Fax: 617-535-3800</p> <p></p> <p>SIGNATURE: <u>Mark G. Lappin</u></p> <p>NAME: <u>26,618</u></p> <p>REGISTRATION NUMBER</p>			

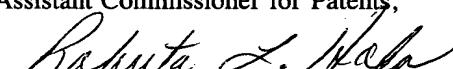
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Li Zhang
U.S. National Phase of
Int'l Appln. No.: PCT/US98/12823
Int'l Filing Date: 19 June 1998 (19.06.98)
Priority Date: 20 June 1997 (20.06.97)
Docket Number: IOLL-281PC (56246)
Title: FLUID PURIFICATION DEVICES AND METHODS
EMPLOYING DEIONIZATION FOLLOWED BY
IONIZATION FOLLOWED BY DEIONIZATION

CERTIFICATE OF MAILING BY EXPRESS MAIL

"Express Mail" Mailing Label Number EK244405761US I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to Box: Patent Application, Assistant Commissioner for Patents, Washington, DC 20231, Attn: RO/US.

12/20/99
Date of Deposit


Roberta L. Hahn

BOX NEW APPLICATION
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

LETTER OF TRANSMITTAL

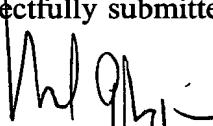
Enclosed herewith for filing in the above application are the following:

1. Transmittal Letter to the United States Designated/Elected office (DO/EO/US) Concerning a Filing Under 35 U.S.C. 371;
2. Preliminary Amendment;
3. Information Disclosure Statement; form PTO-1449, and copies of cited references;
4. Change of Attorney Address Notice;
5. Check for \$854.00; and
5. Acknowledgement postcard.

No additional costs are believed to be due in connection with the filing of this disclosure. However, please charge any necessary fees to our Deposit Account No. 501133.

Respectfully submitted,

Date: 12/20/99


Mark G. Lappin
Registration Number 26,618
McDermott, Will & Emery
28 State Street
Boston, MA 02109
(617) 535-4065